

In the Specification:

Please amend paragraph [0002] as follows:

D1

| [0002] In a mobile wireless communication device, such as, for example a cellular phone, a planar antenna is assembled except for a whip antenna arranged extendable with respect to a device body. The planar antenna mentioned above is mechanically fixed to the circuit board and is electrically connected to a predetermined circuit pattern arranged on the circuit board. Various connection structures between the planar antenna and the circuit board have been proposed. For example, in Japanese Patent Laid-Open Publication No. 9-284023 (JP-A-284023), discloses the connection structure between the planar antenna, which is so-called as an inverted F antenna and the circuit board, is disclosed.

Please amend paragraph [0009] as follows:

D2

| [0009] In the case that it is necessary to exchange the planar antenna for some reasons, it is necessary to break the connection by brazing. However, such an operation is extraordinarily troublesome and takes much cost is very expensive. In the same manner, in the case that the communication device that expires a durable period is disposed, the planar antenna can be recycled in the greater number of cases. However, when the planar antenna is to be detached from the circuit board 4, it is necessary to remove the brazing. Such a removing operation is complicated, and thus there arises a problem such that a recycling cost is increased.

Please amend paragraph [0010] as follows:

D3

| [0010] Secondly, there are following problems regarding the connection between the planar antenna and the spacer 5 made of resin or the device housing made of resin. When the projections 8 formed on a surface of the spacer 5 are inserted into the holes formed to the

planar antenna element 1 and the hot pressing is performed, a partial deformation due to a heating of the planar antenna element or a plastic deformation due to an external load occurs. Therefore, it is feared that a resonance frequency is varied. Particularly, a thickness of metal plate of the planar antenna is thin for example as 0.15 mm, and thus it is easily affected by the hot pressing. Further, the cellular phone requires strongly small size, lightweight and low cost, and thus it is required to make a thickness of the planar antenna thinner. However, there arises a problem such that these requirements cannot be achieved due to the affection of the hot pressing. The same problem arises when the planar antenna and the resin housing are connected by the hot pressing. Moreover, as described ~~on~~ in for example, "New antenna engineering, (Hiroyuki Arai, April 9, 1996, sougou-denshi publisher), page 114", the planar antenna has a complicated shape such that slits or slots are formed therein so as to make it small in numerous cases. Therefore, the number of connection points by the hot pressing necessarily increases, and thus the operation becomes more complicated.

*D 3
Connected*

Please amend paragraph [0011] as follows:

[0011] Further, when the planar antenna is subjected to the disassembling operation or the disposing operation as mentioned above, it is necessary to disassemble the planar antenna from the spacer 5 or the housing. However, an operation for breaking the portion formed by the hot pressing is complicated and ~~requires much cost~~ expensive.

D 4

Please amend paragraph [0018] as follows:

[0018] In the case that the shield case and the ground wires of the circuit board are connected in the same manner as that of the known method mentioned above, the following problems occur inevitably:

D 5

- ① Affection for printed circuit board and electric parts due to the heat of the brazing operation (deformation or partial fracture);
- ② Operation inefficiency for removing the brazing material from the metal case, when the shield case is to be recycled on the circuit board that expires the duration period;
- ③ Complicated operation such as a washing operation before and after the brazing;
- ④ Adhesion of the brazing material to the other circuit elements due to a scattering of the flux and the brazing material itself during the brazing operation; and
- ⑤ Complicated operation for breaking the connection by the brazing, when the electric parts in the shield case are to be exchanged. (In order to overcome the problem ⑤ mentioned above, there is the case that, as the shield case, use is made of a shield case of so-called two-piece type having a lower truss and an upper cap arranged detachably to the truss. In this case, the two-piece shield case is liable to be large in height and obstructs a thin construction on the circuit board. In addition, it is not possible to overcome the problem such that the manufacturing cost is high.

Please amend paragraph [0038] as follows:

[0038] As shown in Fig. 4, the power supply / connection spring pin 14 is divided by a center slit 14a and its tip portion is formed by a pair of projections 14b and 14c, which widens its tip portion. A length of each projections is substantially equal to a thickness of the circuit board 21 (i.e. 0.9 mm). If the power supply / connection spring pin 14 is inserted into the corresponding power supply / connection hole 22 formed to the circuit board 21, the projections 14b and 14c are elastically deformed by a bending stress in such a manner that they are closed with each other, and outer ends of the projections are contacted with pressure to the power supply conductive layer 24 as shown in Fig. 3. In this embodiment, since the

power supply / connection spring pin 14 is not deformed in a thickness direction of the metal plate but deformed in a direction substantially vertical to the thickness direction, an extraordinarily large bending elastic force occurs, and thus the power supply spring pin can be contacted with a large pressure to the power supply conductive layer. Moreover, in order to generate such bending elastic force easily, cutout portions 14d and 14e are formed respectively to base portions of the projections 14b and 14c. Therefore, an electrically stable and low resistive connection can be obtained, and a mechanically strong connection can be also obtained. As well, the short circuit / connection spring pin 15 is constructed as is the same manner as that of the power supply / connection spring pin 14 mentioned above, and thus an excellent electrical and mechanical connection to the short circuit conductive layer 25 arranged to the inner wall of the short circuit / connection hole 23 can be achieved.

Please amend paragraph [0063] as follows:

[0063] Moreover, Fig. 17B shows another embodiment of the power supply spring pin shown in Fig. 4. In a power supply spring pin 64 of this embodiment, a flange 66 is continued to a power supply strip 61 formed integrally with the planar antenna element 11, and tip portions 68a and 68b are divided by means of a slit 67. In this case, ~~sa~~ size of the flange 66 is designed to be larger than that of the hole 22, to which the power supply spring pin 64 is inserted in a bending elastic manner. Therefore, in the case such that the power supply spring pin is inserted into the hole, it is possible to insert the power supply spring pin at a predetermined depth by inserting it to a level at then a lower side of the flange 66 is contacted to a surface of the circuit board 21, so that it is possible to set an interval between the planar antenna 10 and the circuit board 21 automatically to a predetermined value.